

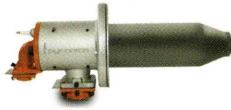
## Burners And Combustion Components For Heating Applications

**selas**

Heat Technology Company

# HIGH TEMPERATURE BURNERS

## Superflame™ Low NOx Medium & High Velocity Burner



For process temperatures up to 2500°F with staged-air combustion for low NOx.

- 150,000 to 10,000,000 BTU/hr (40 to 1465 kW)
- Turndown: 50:1 (2%)

## SW Flat Flame Burner



Spiral flat flame burner for wall or roof application.

- 125,000 to 2,500,000 BTU/hr (30 to 660 kW)
- Turndown: 10:1 (10%)

## XNM Excess Air Burner



Nozzle mixing for 800% excess air in single tunnel, cool flame applications.

- 200,000 to 6,000,000 BTU/hr (50 to 1600 kW)
- Turndown: 100:1 (1%)

## NM Series



Short flames, wide turndown ranges and extremely stable combustion.

- 120,000 to 6,000,000 BTU/hr (30 to 1600 kW)
- Turndown: 10:1 (10%)

## Dual Fuel Excess Air Burner



Nozzle mixing oil or gas units designed for up to 350% excess air or ratio firing.

- 6,500,000 BTU/hr (1700 kW) – gas or light oil
- Turndown: 10:1 (10%)

## Energy Sabre™ 600 Single-Ended Radiant Tube Burner



Advanced SIC heat exchange for very high efficiency radiant tube applications.

- 200,000 BTU/hr (55 kW)
- Turndown: 4:1 (25%)

## UHF Radiant Tube Burner



Compact, efficient, sealed nozzle-mix unit.

- 350,000 to 750,000 BTU/hr (90 to 200 kW)
- Turndown: 15:1 (7%)

## Single-End Recuperative Radiant Tube Combustion System



Single end (SER) or direct fired (UHF).

- 75,000 to 150,000 BTU/hr (2 to 40 kW)
- Turndown: 5:1 (20%)

## Self-Recuperative Burners



Direct and indirect fired self recuperative burners.

- Wide power scope, from 7 to 250 kW
- Maximum application temperature up to 1150°C

## High Velocity, Ceramic Recuperator

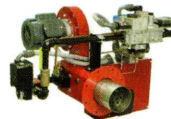


Series K-RHGB Burners

- Wide power scope, from 9 to 250 kW
- Maximum application temperature up to 1300°C

# LOW TEMPERATURE BURNERS

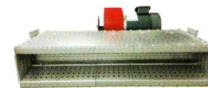
## PC Package Oven Burner –Round



Flexible, high turndown burner for ovens and air heaters.

- 200,000 to 30,000,000 BTU/hr (65 to 7900 kW)
- Turndown: 25:1 (4%)

## PH Package Oven Burner –Linear



Linear or grid burners with high turndown.

- 500,000 to 9,000,000 BTU/hr (130 to 2400 kW)
- Turndown: 25:1 (4%)

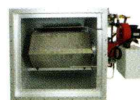
## Selas ISGAD™ Low NOx Burner



Flat flame wall burner for up to 100% H<sub>2</sub>.

- 1,000,000 to 1,500,000 BTU/hr (270 to 400 kW)
- Turndown: 3:1 (33%)

## AHP Indirect Fired Air Heater



Indirect heat exchanger for commercial use.

- 250,000 to 4,500,000 BTU/hr (65 to 1200 kW)
- Turndown: 7:1 (15%)

## TFR Package Immersion Tube



Small bore solution heating for high efficiency.

- 170,000 to 3,300,000 BTU/hr (45 to 870 kW)
- Turndown: 7:1 (15%)

# OXY-FUEL BURNERS

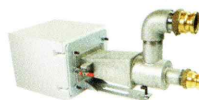
## Oxyfuel Forehearth Burner



Designed to provide temperature homogeneity.

- 30,000 and 50,000 BTU/hr (8 and 13 kW)
- Turndown: 10:1 (10%)

## Oxyfuel Gas Flat Flame Burner



Sheet flame shape to maximize radiant heat transfer to glass tanks.

- 2,500,000 to 20,000,000 Btu/hr (660 to 5300 kW), 5 sizes
- Turndown: 5:1 (20%)

## OxyfuelGas Conical Burner



Non-lifting burner with flexible flame geometry.

- 4,000,000 BTU/hr (1100 kW)
- Turndown: 4:1 (25%)

# PREMIX BURNERS

## KVA Burner



For high speed radiant heat transfer.

- 175,000 BTU/hr (50 kW)
- Turndown: 20:1 (5%)

## Duradiant® Furnace Wall Burner



Two types (above/below 2000°F/1093°C).

- 1,000 to 160,000 BTU/hr (3 to 45 kW)
- Turndown: 10:1 (10%)

## Duradiant® Open Firing Radiant Cup



Controlled heat to improve product quality.

- 1,000 to 160,000 BTU/hr (3 to 45 kW)
- Turndown: 10:1 (10%)

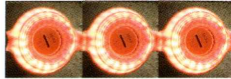
## PRS Spear Flame Burner, AN/FR Nozzles



Open-type for high capacities with good flame retention and wide turndown.

- 2,000 to 2,600,000 BTU/hr (0.5 to 700 kW)
- Turndown: 4:1 (25%) for PRS, 10:1 (10%) for AN/FR

## Duradiant® Line Arrangement Burner



Close coupling of radiant heat sources for light-duty heating applications.

- 1,000 to 160,000 BTU/hr (3 to 45 kW)
- Turndown: 10:1 (10%)

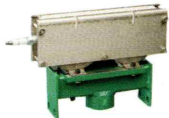
## Coil Cage Burner



For gas-firing, immersed tubes of heating water, solutions, oils, other liquids.

- 40,000 to 500,000 BTU/hr (10 to 140 kW)
- Turndown: 4:1 (25%)

## Extended Length Superheat™ Burner



Mini refractory-lined furnaces capable of heating up to 25,000 BTU/hr/inch.

- 25,000 BTU/hr-inch (0.3 kW/mm)
- Turndown: 10:1 (10%)

## QuadCool™ Ribbon Burner



Port-free ribbon design provides uniform flame pattern for striation-free surfaces.

- 40,000 BTU/hr-inch (0.45 kW/mm)
- Turndown: 40:1 (2.5%)

## High Capacity Sheet Flame Burner



For the treatment of plastic film, foil, textiles, fibers and lamination.

- 60,000 BTU/hr-inch (0.65 kW/mm)
- Turndown: 12:1 (8%)

## Pyroline™ & Midget Burners



Cast iron, drilled port continuous line burners with alloy side rails.

- 300,000 BTU/hr-inch (3 kW/mm)
- Turndown: 20:1 (5%)

## TriZone Burner



Variable heat release zones provide convenient temperature profiling of ovens.

- 150,000 BTU/hr (40 kW), two tube
- Turndown: 4:1 (25%)

## Pipe Burners



Economical ribbon burner solution for baking, flame treating, and film adhesion.

- 10,000 BTU/hr-inch (0.10 kW/mm)
- Turndown: 4:1 (25%)
- Available in Schedule 80 and Schedule 160

# INFRARED BURNERS

## MR-12 Infrared Burner



Fine porosity metal refractory grid offers resistance to impact and thermal shock.

- 20,400 BTU/hr (340 BTU/hr-in<sup>2</sup>); 5.5 kW (140 kW/m<sup>2</sup>)
- Turndown: 2.5:1 (40%)

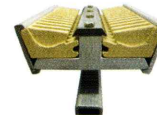
## Apollo-Ray® Gas Infrared Burner



Metal fiber burners with high radiance and all-metal construction, in two sizes.

- 22,000 and 30,000 BTU/hr (485 BTU/hr-in<sup>2</sup>); 6 and 8 kW (200 kW/m<sup>2</sup>)
- Turndown: 2.5:1 (40%)

## Model K Infrared Burner



Air-gas mixture impinges on the finned refractory for maximum radiance.

- 56,000 BTU/hr (1210 BTU/hr-in<sup>2</sup>); 15 kW (495 kW/m<sup>2</sup>)
- Turndown: 4:1 (25%)

# MIXING, COMBUSTION & FLOW CONTROLS

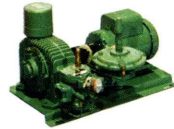
## Redi-Pak® Control Unit



Compact control unit generates premix air-gas blends for industrial burners.

- 150,000 and 400,000 BTU/hr (40 and 110 kW)
- Turndown: 6.7:1 (15%)

## CAV Combustion Control System



Flexible combustion control configured for constant or variable heating.

- 500 to 150,000 scfh (13 to 4020 Nm<sup>3</sup>/hr) air-fuel mixture
- Turndown: 20:1 (5%)

## Venturi Gas Mixers



Mix gas and air to make a combustible mixture.

### Hijector™

- 4,500 to 1,325,000 BTU/hr (1 to 350 kW)
- Turndown: 3:1 (33%)

### Lojector

- 20,000 to 1,000,000 BTU/hr (6 to 270 kW)
- Turndown: 1.3:1 (75%)

## Flomixer™ / Flanged Mixing Tee



Proportional mixers that utilize the energy of pressurized air.

- 125,000 to 2,500,000 BTU/hr (30 to 660 kW)
- Turndown: 10:1 (10%)

## Control Panels



Packaged control cabinets come assembled.

- 2,000 to > 7,000,000 MMBTU/hr (0.5 to > 2000 kW) per customer requirements

## Fuel Trains



Engineered burner supply trains for any application.

## Balanced Zero Regulator



Delivers gas at a precise, balanced pressure even with pressure variations.

- 450 to 18,100 scfh (10 to 500 Nm<sup>3</sup>/hr) natural gas
- Turndown: 200:1 (0.5%)

## Flanged Gas Adjustor



Adjustable orifice valves designed for setting combustion gas and air flow.

- 270 to 38,000 scfh (10 to 1000 Nm<sup>3</sup>/hr) natural gas
- 5 PSIG (34 kPa)

## Motorized Packaged Valve



Modulates air/gas flows for combustion systems.

- 900 to 55,000 scfh (25 to 1,500 Nm<sup>3</sup>/hr) air
- Adjustable automatic flow control valve

Scan with your phone



SELAS Homepage link

## Global Headquarters

11012 Aurora Hudson Road  
Streetsboro, OH 44241  
[www.selas.com](http://www.selas.com)

Toll Free: +1 800-883-9218  
Ph: +1 216-662-8800  
Fax: +1 216-663-8954

# selas®

Heat Technology Company

Selas Wärmetechnik GmbH  
Sandstr. 59  
D 40878 Ratingen  
[www.selas.de](http://www.selas.de)

Ph: +49 2102 4072-0  
Fax: +49 2102 4072-10  
Email: [info@selas.de](mailto:info@selas.de)